



STATE OF WASHINGTON
Department of Labor and Industries

Electrical Plan Review Submittal Guide

Table Of Contents

Page 2:	Table of contents.
Page 3:	Introduction to plan review.
Page 4:	RCW and WAC requirements for plan review. Read Carefully.
Page 5:	Electrical plan review staff, telephone numbers, fax number, mailing address.
Page 6:	Plans examiner geographical areas. City plan review information.
Page 7:	Labor and Industries service locations.
Page 8:	City electrical inspection information.
Page 9:	Plan review submittal form instructions.
Page 10:	Plan review submittal form. (required)
Page 11:	Plan review screen in check list instructions.
Pages 12-14:	Plan review screen in check list form. (required)
Page 15:	Sample one line diagram.
Page 16:	Sample Panel load calculation worksheet.
Page 17:	Sample Single phase panel schedule.
Page 18:	Sample Three phase panel schedule.
Page 19:	Sample Distribution load calculation worksheet.
Page 20:	Sample Peak demand load calculation worksheet.
Page 21:	Identification of approved plans

Introduction

Although electrical plans are checked for compliance with many sections of the National Electrical Code, the main focus of our review is the load on the service and feeders of the electrical system(s), and proper design of emergency and standby systems. Our review starts at the branch circuit level and investigates equipment and conductors in the load path back to the service point.

The pages following this introduction describe the information needed to review your electrical plans and load data. We have included instructions, sample forms, and schedules to demonstrate an acceptable format that can be used to present your supporting documentation. You may use our forms, or you may create your own. These forms are designed to assist you in assembling an accurate presentation so as to demonstrate that your design is in compliance with the appropriate codes.

The ***"Electrical Plan Review Submittal"*** form shown on page 10 **must be completed and enclosed** with all plan submittals. The information in items 1 through 10 on this form is entered into our database and provides us the details needed to identify, track, and record your project. Plans sent in without a submittal form will be rejected upon receipt. If you would like this form in an electronic version please call Bill Eckroth at (360) 902-5254.

The documentation as outlined in ***"the Screen In Check List"*** **must be** presented in order for the plans examiner to begin a review. **Plans lacking the appropriate screen-in information will be disapproved and sent back.**

The Electrical Plan Review staff would like to hear any suggestions or concerns you may have about the review process. We welcome your constructive comments.

RCW and WAC Requirements for Electrical Plan Review

Revised Code of Washington (RCW) 19.28 states that electrical installations “*shall be in conformity with approved methods of construction.*” The standards used for “*approved methods*” are listed in Washington Administrative Code (WAC) 296-46B-010 and include the currently adopted editions of NFPA 70 (National Electrical Code), NFPA 20 (Centrifugal Fire Pumps), and NFPA 110 (Emergency and Standby Power Systems).

WAC 296-46B-901 (13) provides classification or definition of occupancies. WAC 296-46B-901 (15), Table 901-1, and Table 901-2 specify the occupancies for which plan review is required.

WAC 296-46B-901 (15)(h) requires that plans that are to be reviewed by the department “*... must clearly show the electrical installation or alteration in floor plan view, include switchboard and/or panelboard schedules and when a service or feeder is to be installed or altered, must include a riser diagram, load calculation, fault current calculation and interrupting rating of equipment. Where existing electrical systems are to supply additional loads, the plans must include documentation that proves adequate capacity and ratings. The plans must be submitted with a plan review submittal form available from the department...*”

Riser diagrams and load calculations must include all of the equipment carrying the additional loads and be complete to the point of connection between the facilities of the serving utility and the premises wiring. NEC 215-5 requires that the details of such diagrams and calculations shall include “*... the area in square feet of the building or other structure supplied by each feeder, the total calculated load before applying demand factors, the demand factors used, the calculated load after applying demand factors, and the size and type of conductors to be used.*”

WAC 296-46B-901 (14) states “Plan review is a part of the electrical inspection process; its primary purpose is to determine: (a) That service/feeder conductors are calculated and sized according to the proper NEC or WAC article or section; (b) The classification of hazardous locations; and (c) The proper design of emergency and standby systems.” The Electrical Plans Examiner’s responsibility is to review plans for electrical installations to verify compliance with the National Electrical Code and Washington State Rules and Regulations.

For the latest Electrical RCW and WAC rules please visit our web site at:
<http://www.lni.wa.gov/TradesLicensing/Electrical>

Electrical Plan Review Staff Phone Numbers and Mailing Address

Please direct all billing calls and plan status checks to Bill Eckroth.
The plan review supervisor will address technical or plan review policy questions.

Chief Electrical Inspector:

Ron Fuller
Telephone Number: 360.902.5249
Fax Number: 360.902.5229

Plan Review Supervisor:

Bill Eckroth
Phone number: 360.902.5254
Fax Number: 360.902.5296

Plans Examiner:

Mike Buettner
Phone number: 360.902.5253
Fax Number: 360.902.5296

Plans Examiner:

Bill Dozier
Phone number: 360.902.5248
Fax Number: 360.902.5296

Plans Examiner:

Norm Williams
Phone Number: 360.902.5247
Fax Number: 360.902.5296

Please address all mail to:

Electrical Plan Review
Attn.: Bill Eckroth

Street / Delivery Address:

7273 Linderson Way SW
Tumwater, WA 98502

Mailing Address:

PO Box 44460
Olympia, WA 98504-4460

Plan review fees are based on a percentage of the electrical inspection fee that is calculated during the review. You will be billed for the plan review fee after the review is completed.

Plans Examiner Geographical Areas

Electrical Plans are not assigned based upon a geographic area

Plan Review in Cities Doing Their Own Electrical Inspections

If the project you are submitting is within the inspection jurisdiction of the cities listed on page 8, Labor and Industries **does not** do the plan review. You will have to submit your plans to the city responsible for the electrical inspection.

Labor and Industries Service Locations 2007

ABERDEEN (MS WA42)

415 W Wishkah STE 1B
Aberdeen WA 98520-0013
360.533.8200
Fax: 360.533.8220
Electrical Supervisor
Bob Thomas 360.902.5201

BELLEVUE (MS NB75)

616 120th Ave. NE #C201
Bellevue WA 98005-3037
425.990.1400
Fax: 425.990.1446
Electrical Supervisor
Tim Hingtgen 425.990.1462

BELLINGHAM (MS BHAM)

1720 Ellis St. STE 200
Bellingham WA 98225
360.647.7300 or 7320
Fax: 360.647.7310
Electrical Supervisor
Dennis Patterson 360.416.3020

BREMERTON (MS WB07)

500 Pacific Ave. STE 400
Bremerton WA 98337
360.478.4921
Fax: 360.415.4048
Electrical Supervisor
Scott Kelly 360.415.4015

COLVILLE (MS SPOK)

298 S Main STE 203
Colville WA 99114-2416
509.684.7417
Fax: 509.684.7416
Electrical Supervisor
Wayne Molesworth 509.324.2532

EVERETT (MS TB26)

729 100Th St SE
Everett WA 98208-2620
425.290.1300
Fax: 425.290.1399
Electrical Supervisor
Jim Hinrichs 425.290.1320

KENNEWICK (MS KENN)

4310 W. 24th Ave
Kennewick WA 99338-1992
509.735.0138
Fax: 509.735.0120
Electrical Supervisor
Dene Koons 509.735.0130

LONGVIEW (MS LONG)

900 Ocean Beach Hwy
Longview WA 98632
360.575.6900
Fax: 360.575.6918
Electrical Supervisor
Steve Thornton 360.896.2356

MOSES LAKE (MS MLAK)

3001 W Broadway Ave
Moses Lake WA 98837-2907
509.764.6900
Fax: 509.764.6923
Electrical Supervisor
Dene Koons 509.735.0130

MOUNT VERNON (MS MTVE)

525 E College Way STE H
Mt. Vernon WA 98273-5500
360.416.3000
Fax: 360.416.3030
Electrical Supervisor
Dennis Patterson 360.416.3020

PORT ANGELES (MS WTAN)

1605 E Front St. STE C
Port Angeles WA 98362-4628
360.417.2702
Fax: 360.417.2733
Electrical Supervisor
Scott Kelly 360.415.4015

PULLMAN (MS SPOK)

1250 Bishop Blvd. STE G
Pullman WA 99163-0847
509.334.5296
Fax: 509.334.3417
Electrical Supervisor
Wayne Molesworth 509.324.2532

SPOKANE (MS SPOK)

901 N Monroe STE 100
Spokane WA 99201-2149
509.324.2640
Fax: 509.324.2655
Electrical Supervisor
Wayne Molesworth 509.324.2532

TACOMA (MS WT21)

950 Broadway, Suite 200
Tacoma WA 98402
253.596.3808
Fax: 253.596.3956
Electrical Supervisor
Jack Knottingham 253.596.3815

TUKWILA (MS TB52)

12806 Gateway Drive
Tukwila WA 98168
206.835.6630
Fax: 206.835.6636
Electrical Supervisor
Ken Copeland 206.835.1078

TUMWATER (MS 4814)

7273 Linderson Way SW
Tumwater WA 98501
360.902.5269
Fax: 360.902.6340
Electrical Supervisor
Bob Thomas 360.902.5201

VANCOUVER (MS S-14)

312 SE Stonemill Drive STE 120
Vancouver WA 98684
360.896.2300
Fax: 360.896.2345
Electrical Supervisor
Steve Thornton 360.896.2356

WHITE SALMON (MS S-14)

107 West Jewett Blvd, White
Salmon, WA 98672
509.493.5041
Fax: 360.896.2394
Electrical Supervisor
Steve Thornton 360.896.2356

EAST WENATCHEE (MS EWEN)

519 Grant Rd
E. Wenatchee WA 98802-5459
509.886.6500
Fax: 509.886.6510
Electrical Supervisor
Gary Gooler 509.454.3763

YAKIMA (MS YAKI)

15 W Yakima Ave. STE 100
Yakima WA 98902-3401
509.454.3760
Fax: 509.454.3710
Electrical Supervisor
Gary Gooler 509.454.3763

City Electrical Inspectors

City of Aberdeen

James Criel, Inspector
200 E Market Street
Aberdeen WA 98502
360.537.3275
Fax 360.537.3386

City of Bellevue

Bob Lloyd, Inspector
11511 Main Street
Bellevue WA 98009
425.452.7911
Fax 425.452.7930

City of Bellingham

Steve Johnson, Inspector
210 Lottie Street
Bellingham WA 98225
360.676.6550
Fax 360.738.7358

City of Burien

Dan Cruz, Inspector
415 SW 150th
Burien WA 98146
206.241.4647
Fax 206.248.5539

City of Des Moines

Rex Christensen, Inspector
21650 11th Ave S
Des Moines WA 98198
206.870-7576
Fax 206.870.6544

City of Eatonville

Nestor Sundita, Inspector
PO BOX 309
Eatonville WA 98328
360.832.3361
Fax 360.832.3977

City of Everett

Tim Alaniz & Dave Misner
3200 Cedar Street
Everett WA 98201
425-257-8810
Fax 425-257-8856

City of Federal Way

Joseph Szpek, Inspector
33530 1st Way South
Federal Way WA 98003
253.661.4152
Fax 253.835.2609

City of Kirkland

Clell Mason, Inspector
123 Fifth Ave
Kirkland WA 98033
425.587.3600
Fax 425.828.1292

City of Lacey

_____, Inspector
PO BOX 3400
Lacey WA 98509
360.491.5642
Fax 360.438.2669

City of Longview

Wayne Wagner, Inspector
PO BOX 128
Longview WA 98632
360.442.5085
Fax 360.442.5953

City of Lynnwood

Dave Duncan, Inspector
PO BOX 5008
Lynnwood WA 98046
425-670-6647
Fax 425-771-6585

City of Mercer Island

Al Davis, Inspector
9611 SE 36th Street
Mercer Island WA 98040
206.236.5300
Fax 206.236.3599

City of Milton

Tacoma Power Inspections
253.502.8659
Milton Power
1000 Laurel ST
Milton, WA 98354
253.922.8738

City of Mountlake Terrace

John Clay, Inspector
23204 58th
Mount Lake Terrace, WA 98043
425-744-6268
Fax 425-778-6421

City of Normandy Park

801 SW 174th ST
Normandy Park, WA 98166
206.248.7603
Fax 206.439.8674

City of Olympia

Scott Hopp, Inspector
PO Box 1967
Olympia WA 98507
360.753.8337 / Fax 360.753.8087

City of Port Angeles

Al Oman, Inspector
240 W Front
Port Angeles WA 98632
360.417.4735
Fax 360.417.4711

City of Redmond

Jeff Shepard, Inspector
15670 NE 85th St
Redmond WA 98052
425.556.2473
Fax 425.556.2400

City of Renton

Dick Gilcrist, Inspector
1055 S Grady Way
Renton WA 98055
425-430-7273
Fax 425-430-7300

City of Sea Tac

Jerry Berndt/Bill Buterbaugh,
Inspectors
17900 International Bldg.
Sea Tac WA 98188
206.973.4750
Fax 206.973.4769

City of Seattle

Dick Alford/Mark Gibbs, Chief
710 5nd Ave Ste 2000
Seattle WA 98104
206.684.8421
Fax 206.386.4039

City of Spokane

Ardee Ableman, Supervisor
W 808 Spokane Falls
Spokane WA 99201
509.625.6300
Fax 509.625.6822

City of Tacoma

Pat Finney Chief Inspector
3628 S 35th
Tacoma WA 98409
253.502.8435
Fax 253.502.8659

City of Tukwila

6300 Southcenter Blvd., #100
Tukwila WA 98188
206-431-3670

City of Vancouver

Cindy Peterson, Building Official
PO BOX 1995
Vancouver WA 98668
360.735.8873 Ext. 4140
Fax 360.696.8263

SUBMITTAL SHEET INSTRUCTIONS

1. Project:

Name of the facility.

EXAMPLE: Mukilteo Elementary School

2. Project Address:

Facility (inspection) address as assigned by local building or planning department. Include the city in which the project is located.

EXAMPLE: 1101 First Ave - Moses Lake, WA 98555

3. Submitter Address:

Address of the person or firm submitting the plans for review. Please give the proper address for Federal Express delivery.

EXAMPLE: Sparling - 110 First Ave NE - Seattle, WA 98555

4. Project Owner:

Name of the person, corporation, or agency that is the registered owner of facility.

EXAMPLE: Mukilteo School District

5. Is this project licensed through Department of Health (DOH) or a contracted service with the Department of Social and Health Services (DSHS)?

What type of facility license is it? Boarding home, Nursing home, etc?

EXAMPLE: (If applicable) Boarding Home

6. Contact Person (including phone and Fax numbers):

The electrical designer or individual that can answer technical questions on electrical plans, load calculations, panel schedules, etc.

EXAMPLE: Ed Stanton 206.555.5555 Fax: 206.555.5555
Email: Ed@provider.com

7. General Description:

Provide a detailed description of the complete scope of electrical work being done; indicate whether project is new construction, addition, remodel, etc.

EXAMPLE: Portable classroom additions to the school electrical system.

8. Start Date:

Date electrical work starts.

9. Completion Date:

Date project is scheduled for completion.

10. SPI Funding Information

Does the project have state matching funds from the Office of the Superintendent of Public Instruction? If so, Bid Date and School District.

EXAMPLE: June 30, 2007 Mukilteo School District

1. Project (Facility Name):		2. Project Address (Street Address and City):	
3. Submitter Name and Mailing Address (Federal Express):			
4. Project Owner:		5. Is the facility licensed by DOH or DSHS? YES NO If YES, how is it licensed?:	
6. Electrical Design Contact Person:		Telephone Number: (____) ____-____	Fax Number: (____) ____-____
Email Address (optional):			
7. Project Description: _____ _____ _____ _____ _____ _____ _____ _____ _____ _____			
8. Proposed Construction Start Date:		9. Proposed Construction Completion Date:	
10. SPI Funded School Project? YES NO If YES, proposed bid date:		School District:	

- (Following this procedure will expedite the review process and plan approval. Missing items may cause the presentation's disapproval and added fees charged)

Electrical Plan Review Screen In Check List Instructions

The following three pages contain a checklist, and once completed will be used by the assigned plan reviewer to screen-in your presentation. Verifying the submitted checklist may require as little as a few minutes by the reviewer on very small projects such as a school portable, or as much as three to four hours for very large, complex facilities.

The intent of the screen-in process is to quickly access the submittal and weed out and disapprove submittals that have multiple errors before the reviewer has spent many hours of review time on the review. A successful screen-in will result in the ability of your project to proceed and receive electrical inspections (see WAC 296-46B-901 (15) (d)) and may result in immediate approval of small projects at screen-in.

Please be aware that the **Electrical Plan Review is not to be used as quality control for drafting errors, but is intended to be a review process for code compliance of the electrical system.** If projects are disapproved at any point during the screen-in and/or review process, you will be charged for the review time spent (along with a one-hour minimum) and your plans will be shipped back to you with our comments. When we receive your presentation back after the initial disapproval, your submittal will be processed based upon the date that we re-receive them, will be screened again and placed in order received, behind other pending projects.

Your final approved plans will not be shipped until all fees for a particular project, disapproved and approved plan review fees, have been paid in full.

Please use this checklist prior to shipping us your presentation to see if it meets all of the items on the list; include the checked list with your submittal package. By following this procedure we will receive a product that can be reviewed in a short time frame, and you will receive your approved plans in quick order without inspection delays.

Please note: Electrical Plan Review only requires one set of plans per submittal. If additional (duplicate) sets are submitted, a minimum of one hour will be charged per set.

Electrical Plan Review Screen In Check List

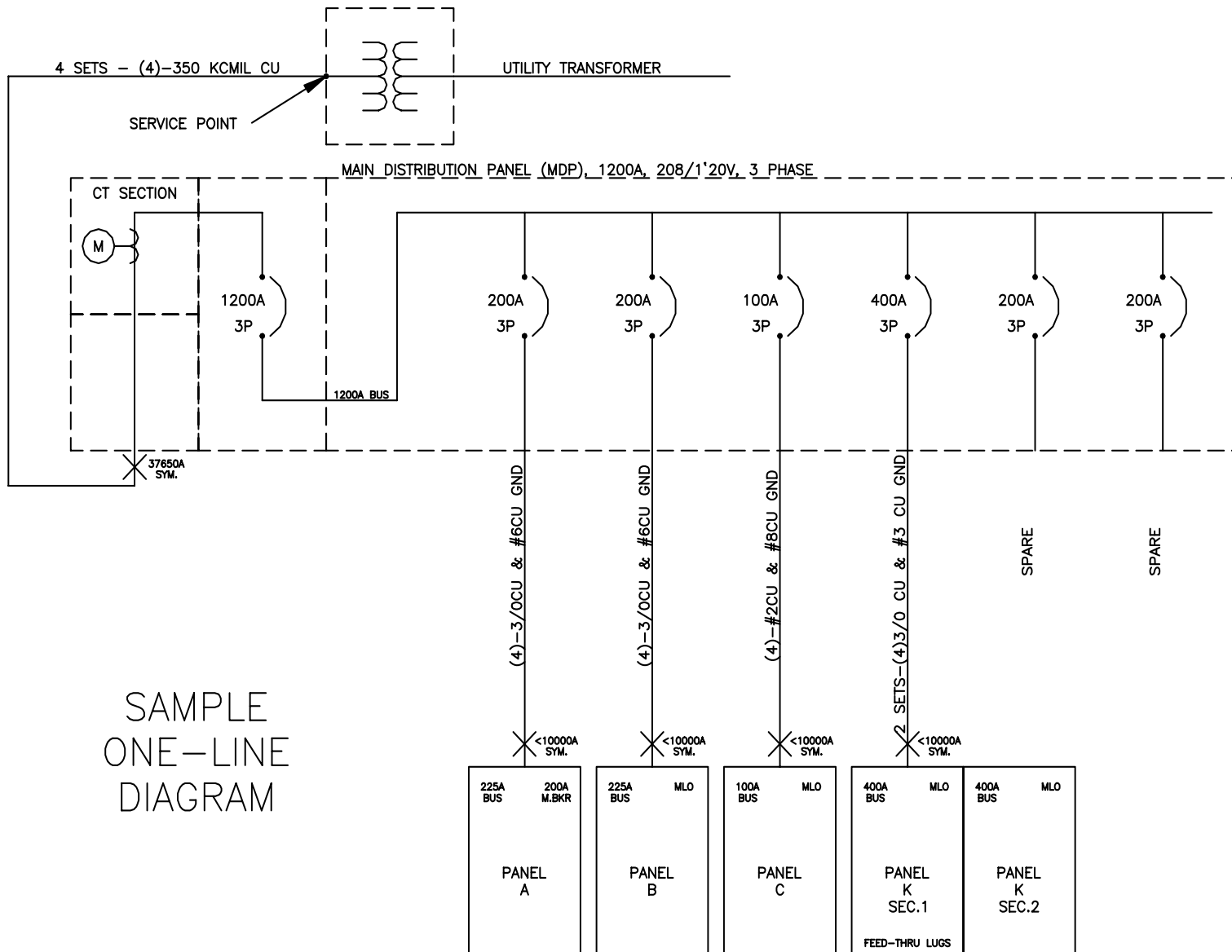
- ☐ **Type Of Facility Identified** (Educational, Institution, Health Care, or Other)
- ☐ **If Health Care, How It Is Licensed By The State Of Washington?**
- ☐ **Electrical Engineers Stamp And Signature, As Required By WAC, On Educational, Hospital, and Nursing Home Drawings**
- ☐ **Is The Facility Required To Have Electrical Plan Review?**
- ☐ **Location Of Facility** (Is it in the States jurisdiction or a cities jurisdiction)
- ☐ **One Line/Riser Diagram** (Shown back to service point)
- ☐ **Conductor Sizes**
- ☐ **Service Point Per NEC 100 Identified**
- ☐ **Fault Currents Tagged**
- ☐ **Check for NEC 500 Classified (Hazardous) Locations**
- ☐ **If Hazardous Locations Present Must Have Documentation Per NEC 500-4(A)**
(Normally from Fire Marshals Office)
- ☐ **Are Hazardous Locations Shown On Plans**
- ☐ **Specifications** (Optional) For information only.
- ☐ **Load Calculations Need To Be In VA or KVA out two decimal points.**
- ☐ **Loads Broke Out Per NEC 220 Categories**
- ☐ **Computer Receptacles? Not Allowed Under General Use Receptacle Demand**
- ☐ **Correctly Used Categories For Occupancy** (dwelling units, hospital rooms, etc)

Electrical Plan Review Screen In Check List

- ☐ **Demand Calculations** (See NEC 220.87 & WAC 296-46B-901 (15)(j))
- ☐ **Demand Records** (Supply utility records for the last 12 months, in compliance with NEC 220.87)
- ☐ **Power Factor Correction**
- ☐ **Seasonal and Occupancy Adjustments**
- ☐ **30 Day Metered Demand Study - Validity Statement with Signature Required**
(Licensed Engineer or Electrical Administrator)
- ☐ **Dates of Measurements** (Must be current in compliance with NEC 220.87)
- ☐ **Diagram Showing Point of Metering**
- ☐ **Spot Check Load Calculations to Panel Schedules for Overloads**
- ☐ **Fault Current Calculations For Complete System or**
- ☐ **Note That Will Be Listed Series Rated System**
- ☐ **Panel Schedules For All Panels With Load Increase** with accurate loads shown in VA or KVA out two decimal points.
- ☐ **Before and After Panel Schedules for Load Reductions**
- ☐ **Lighting Fixture Schedule With Input VA Listed For Each Fixture Type**
- ☐ **Check For Solidly Grounded Systems of 1 kv and Over and Compliance With WAC 296-46B-250 184**
- ☐ **Mechanical Equipment Schedule With Electrical Load Information or**
- ☐ **Mechanical Equipment Load Information On The Plans Kitchen Equipment Schedules With Electrical Load Information**
- ☐ **Shop Equipment Schedule With Electrical Load Information**

Electrical Plan Review Screen In Check List

- ☐ **Min. 1/8" Scale, Separate, Power Plans With Connecting Lines And Home Runs** (Additional hourly fees may be required for added review time for other than this format. This also applies to the next item also.)
- ☐ **Min. 1/8" Scale, Separate, Lighting Plans With Connecting Lines, Home Runs, and Fixtures Identified By Type Electrical Site Plan**
- ☐ **Random Check Of Branch Circuits On Each Sheet For Accurate Load As Compared To Panel Schedule**
- ☐ **Battery Backup Egress and Exit Lighting? Yes_____ No_____ .**
- ☐ **Check Emergency Lighting For Battery Backup Fixtures Off Normal Lighting Circuit For Area Served (NEC 700.17)**
- ☐ **Check One Line Diagram And Panel Schedule For Correct Overcurrent Protection On Service Conductors**
- ☐ **Check One Line Diagram And Panel Schedules For Correct Overcurrent Protection On Secondary Of Transformers (Cannot Round Up)**
- ☐ **Check One Line Diagram And Panel Schedules For Correct Separation Of Emergency And Backup Power Systems**
- ☐ **Check If Generator Power System Is Present. If Checked, Identify Type Below**
(If there is a generator system on site, identification of system type is required.)
 - ☐ **NEC 700**
 - ☐ **NEC 701**
 - ☐ **NEC 517**
 - ☐ **NEC 702**
- ☐ **If There Is Not A Generator, Is There An Emergency System? Yes ____ No ____**
If Yes, What Type?_____.
- ☐ **Check To See If Compliant With NEC 700.27, NEC 701.18 & NEC 517.26 For Selective Coordination. (See WAC 296-46B-700(4) & WAC 296-46B-701 For Existing Systems)**
- ☐ **Check One Line Diagram And Site Plan For Correct Building Disconnects**



PANEL LOAD CALCULATION WORKSHEET

Project: _____ Date ____/____/____

Panel ID: _____

LOAD TYPE	CONNECTED LOAD	NEC ADJUSTMENT FACTOR	=	CALCULATED NEC LOAD
Lighting	_____	X 125%	=	_____
General-use Receptacles (First 10KVA)	_____	X 100%	=	_____
General-use Receptacles (Over 10KVA)	_____	X 50%	=	_____
Motors and Compressors	_____	X 100%	=	_____
(Largest Motor Load) (_____)		X 25%	=	_____
Dedicated or Specific-use Receptacles	_____	X 100%	=	_____
HVAC and Mechanical Equipment Loads	_____	X 100%	=	_____
Kitchen Equipment (#____)	_____	X ____%	=	_____
Miscellaneous Loads	_____	X 100%	=	_____
_____	_____	X ____%	=	_____
_____	_____	X ____%	=	_____
_____	_____	X ____%	=	_____
<input type="checkbox"/> 240/120 <input type="checkbox"/> 3Ø <input type="checkbox"/> 208/120 <input type="checkbox"/> 1Ø <input type="checkbox"/> 480/277 <input type="checkbox"/> _____ <div style="text-align: center;">System Voltage</div>	<div style="border: 1px solid black; width: 250px; height: 40px; margin: 0 auto;"></div> <div style="text-align: center;">TOTAL CONNECTED LOAD</div>		<div style="border: 1px solid black; width: 200px; height: 40px; margin: 0 auto;"></div> <div style="text-align: center;">TOTAL CALCULATED LOAD</div>	
<div style="border: 1px solid black; width: 200px; height: 40px; margin: 0 auto;"></div> <div style="text-align: center;">TOTAL CALCULATED AMPS</div>				

Connected Load-

1. The nameplate rating of all appliances that are fastened in place, permanently connected, or located to be on a specific circuit. (Water heaters, space heaters, ranges, refrigerators, etc.)
2. 180 VA for each general-use receptacle.
3. Maximum VA of lighting fixtures.
4. VA of all motors based on full load amps from table 430-147, 148, 149 and 150 of the National Electrical Code.

Calculated NEC Load-

The connected load after any code required adjustment factors have been applied. Load calculations shall be submitted/expressed in VA and converted to amps when sizing feeders and equipment, and is the minimum size allowed based upon these calculations.

Panel ID: _____ Location: _____ Fed From: _____	PANEL SCHEDULE Single Phase	Bus Rating: _____ A <input type="checkbox"/> Main Breaker _____ A <input type="checkbox"/> Main Lugs Only <input type="checkbox"/> Fed-Thru Lugs <input type="checkbox"/> Double Lugs Single Phase <input type="checkbox"/> 4-wire <input type="checkbox"/> 3-wire <input type="checkbox"/> Iso. GND Voltage <input type="checkbox"/> 240/120 <input type="checkbox"/> 208/120 <input type="checkbox"/> _____
Panel A.I.C. Rating: <input type="checkbox"/> 10 K <input type="checkbox"/> 14 K <input type="checkbox"/> 18 K <input type="checkbox"/> 22 K <input type="checkbox"/> 25 K <input type="checkbox"/> 42 K <input type="checkbox"/> 65 K <input type="checkbox"/> 100 K <input type="checkbox"/> 150 K <input type="checkbox"/> 200 K		

Circuit Description		LOAD(VA)	Code	Breaker	BUS	Breaker	Code	LOAD(VA)	Circuit Description	
1					A					2
3					B					4
5					A					6
7					B					8
9					A					10
11					B					12
13					A					14
15					B					16
17					A					18
19					B					20
21					A					22
23					B					24
25					A					26
27					B					28
29					A					30
31					B					32
33					A					34
35					B					36
37					A					38
39					B					40
41					A					42

Code Description:

L = LIGHTING LOADS

R = GENERAL USE RECEPTACLES

M = TOTAL MOTOR LOAD

S = DEDICATED RECEPTACLES

H = HVAC

K = KITCHEN EQUIPMENT

LM = LARGEST SINGLE MOTOR

Z = MISC OR APPLIANCES

REVISION DATE: 10-10-2007

Panel ID: _____ Location: _____ Fed From: _____	PANEL SCHEDULE Three Phase	Bus Rating: _____ A <input type="checkbox"/> Main Breaker _____ A <input type="checkbox"/> Main Lugs Only <input type="checkbox"/> Fed-Thru Lugs <input type="checkbox"/> Double Lugs	Three Phase <input type="checkbox"/> 4-wire <input type="checkbox"/> 3-wire <input type="checkbox"/> Iso. GND	Voltage <input type="checkbox"/> 480/277Y <input type="checkbox"/> 208/120Y <input type="checkbox"/> 240/120Δ <input type="checkbox"/> _____
Panel A.I.C. Rating: <input type="checkbox"/> 10 K <input type="checkbox"/> 14 K <input type="checkbox"/> 18 K <input type="checkbox"/> 22 K <input type="checkbox"/> 25 K <input type="checkbox"/> 42 K <input type="checkbox"/> 65 K <input type="checkbox"/> 100 K <input type="checkbox"/> 150 K <input type="checkbox"/> 200 K				

Circuit Description		LOAD(VA)	Code	Breaker	Ø	Breaker	Code	LOAD(VA)	Circuit Description
1					A				2
3					B				4
5					C				6
7					A				8
9					B				10
11					C				12
13					A				14
15					B				16
17					C				18
19					A				20
21					B				22
23					C				24
25					A				26
27					B				28
29					C				30
31					A				32
33					B				34
35					C				36
37					A				38
39					B				40
41					C				42

Code Description:

L = LIGHTING LOADS

R = GENERAL USE RECEPTACLES

M = TOTAL MOTOR LOAD

S = DEDICATED RECEPTACLES

H = HVAC

K = KITCHEN EQUIPMENT

LM = LARGEST SINGLE MOTOR

Z = MISC. OR APPLIANCES

DISTRIBUTION CALCULATION WORKSHEET

Date: _____

Name: _____

Address: _____

Inspection Office: _____

Project Description: _____

LOAD TYPE												CONN. TOTAL	%	CALC. TOTAL
Lighting Loads													x125%	
General use Receptacles ≤10 KVA													x100%	
General use Receptacles >10 KVA													x50%	
Motors and Compressors													x100%	
(Largest Motor)	()	()	()	()	()	()	()	()	()	()	()	()	x25%	
Specific-use Receptacles													x100%	
HVAC Equipment and Mechanical													x100%	
Kitchen Equipment													x____%	
Miscellaneous or Appliances													x100%	
													x____%	
													x____%	
CONNECTED LOAD														
CALCULATED LOAD														
AMPS														

PEAK DEMAND CALCULATION WORKSHEET

PER NEC 220-87 and WAC 296-46B-901(15)(j)

1.	Recorded Peak Demand on Date: _ _ / _ _ / _ _	=	_____	KW
2.	Power Factor	÷	_____	(P.F.)
	Apparent Peak Demand	=	_____	KVA
3.	NEC 220-87 adjustment factor	X	1.25	
	Adjusted Peak Demand		_____	KVA
4.	Seasonal adjustment factor *	X	_____	
	Seasonally Adjusted Peak Demand	=	_____	KVA
5.	Occupancy adjustment factor *	X	_____	
	Occupancy Adjusted Peak Demand	=	_____	KVA
6.	Other adjustment factor(s) *	X	_____	
	Annual Peak Demand	=	_____	KVA
7.	New Calculated Load Added	+	_____	KVA
Metered demand based CALCULATED LOAD:				KVA

				AMPS

Note: See WAC 296-46B-901 (15)(j) for additional metering requirements.

* Explain how the factor was derived for 30-day demand metering.

Seasonal _____

Occupancy _____

Other _____

Identification of APPROVED PLANS

WAC 296-46B-901 (15)(d)(v) requires that “approved” plans shall be available on the job site for use by the electrical inspector prior to the final inspection. The following illustrations represent the appearance of the approval stamps currently in use by the Labor and Industries Electrical Plans Examiners.

The large stamp below will be placed on the cover sheet of the complete plan package, on the first sheet of the electrical plans, or on both. It may be stamped with red or black ink. The signature of the electrical plans examiner will be on the approval stamp.

- ☒ **APPROVED**-Means that the plans have been approved as submitted without corrections.
- ☒ **APPROVED AS NOTED**-Means that the plans have been approved and the plans examiner has included notes, intended for the electrical inspector, that describe corrections or changes in the original design submittal. These notes are always written or highlighted in RED INK and individually initialed by the plans examiner. Compliance with these notes is mandatory and a condition of the plan approval.


DEPT. OF LABOR & INDUSTRIES	
Electrical Plan Review	
PLANS	APPROVED _____
	APPROVED _____
	AS NOTED <u>SEP 14 2007</u>
BY	<u><i>Examiner's Signature</i></u>
	Plans Examiner
SUBJECT TO PERMIT FEE _____	
PROJECT SUBJECT TO _____	
CODE AND FIELD INSPECTION	

The small stamp below will be placed on each approved electrical plan sheet. It may be stamped with red or black ink. The signature of the electrical plans examiner will be on each approval stamp.


<small>STATE OF WASHINGTON DEPT. OF LABOR AND INDUSTRIES ELECTRICAL PLAN REVIEW SECTION APPROVED</small>
SEP 14 2007
<small>SUBJECT TO CODE AND FIELD INSPECTION</small>
BY <u><i>Examiner's Signature</i></u>

All plan sheets, specifications, calculations, and other materials are stamped with the electrical plan review number:


0 0 0 – 0 0 – 0 0 0 0




FACILITY TYPE CODE




MONTH



DAY



YEAR



ORDER IN MONTH